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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1 (original). A lasing device comprising:

a ring cavity;

a coupling means for extracting laser emission from the ring cavity; and

a frequency selection means in connection with the coupling means, wherein the frequency selection means is operable to feed back part of the extracted laser emission into the ring cavity and to select the frequency of the feedback signal, and the frequency selection means is not part of the ring cavity.

2 (original). The lasing device as claimed in claim 1, wherein the frequency selection means is a grating.

3 (currently amended). A lasing deice as claimed in ~~claims 1 and 2~~claim 1, wherein the ring cavity comprises a ring-shaped optical waveguide.

4 (original). A lasing device as claimed in claim 3, wherein the coupling means comprises a waveguide output coupler.

5 (original). A lasing device as claimed in claim 4, further comprising:

an optical gain element, wherein the optical gain element forms a part or all of the ring cavity.

6 (original). A lasing device as claimed in claim 5, wherein the optical gain element is a semiconductor material.

7 (original). The lasing device as claimed in claim 6, wherein the waveguide output coupler is a bi-directional coupler.

8 (original). The lasing device as claimed in claim 7, wherein the frequency selection means and the optical gain element are comprised of an optically passive layer and an optically active layer, a semi-insulating layer, an upper cladding layer and an ohmic contact layer; and

the frequency selection means further comprising corrugations formed by an etching process.

9 (original). The lasing device as claimed in claim 7, wherein the optical gain element, the grating, the waveguide output coupler and the ring cavity are monolithically integrated onto a substrate.

10 (original). The lasing device as claimed in claim 9, wherein the optical gain element is comprised of an optically passive layer and an optically active layer separated by a spacer layer;

the grating is comprised of a waveguide made from an optically passive layer and an optically active layer; and

the output coupler and the ring cavity are formed in an optically passive layer.

11 (original). The lasing device as claimed in claim 10, wherein the grating is formed by periodically varying the width of the waveguide.

12 (original). The lasing device as claimed in claim 10, wherein the grating is formed by etching corrugations in the waveguide.

13 (original). The lasing device as claimed in claim 7, wherein the optical gain element, the grating, the output coupler and the ring cavity are hybrid integrated onto a substrate.

14 (original). The lasing device as claimed in claim 13, wherein the substrate material is optically transparent to a lasing wavelength.

15 (currently amended). The lasing device as claimed in ~~any proceeding claim~~claim 1, wherein the frequency selection means comprises:

a control means for controlling a refractive index of the frequency selection means.

16 (original). The lasing device as claimed in claim 15, wherein the control means is a variable current source.

17 (original). The lasing device as claimed in claim 16, wherein lasing occurs where a resonant frequency of the ring cavity is substantially the same as the reflecting frequency of the frequency selection means.

18 (currently amended). An optical communication system including a tunable lasing device as claimed in ~~any preceding claim~~claim 1.

19 (original). A method of changing a lasing frequency of a ring cavity laser, the method comprising:

operating the ring cavity laser at a first ring cavity resonant frequency, wherein a reflecting frequency of the frequency selection means substantially coincides with the first ring cavity resonant frequency;

controlling the frequency selection means to change the reflecting frequency from the first reflecting frequency to a second reflecting frequency; and thereby

operating the ring cavity laser at a second ring cavity resonant frequency, wherein the second reflecting frequency of the frequency selection means substantially coincides with the second ring cavity resonant frequency.

20 (original). The method of changing a lasing frequency of a ring cavity laser as claimed in claim 19, wherein the frequency selection means is not part of the ring cavity.

21 (currently amended). The method of changing a lasing frequency of a ring cavity laser as claimed in ~~claims 19 and 20~~claim 19, wherein the step of controlling the

frequency selection means comprises controlling a refractive index of the frequency selection means.

22 (original). The method of changing a lasing frequency of a ring cavity laser as claimed in claim 21, the method further comprising:

reducing a pumping level of an optical gain element to a level less than a lasing threshold for the duration of changing the frequency selecting means from the first reflecting frequency to the second reflecting frequency; and

restoring the pumping level of the optical gain element to above the lasing threshold after the change from the first reflecting frequency to the second reflecting frequency.

23 (original). The method of changing a lasing frequency of a ring cavity laser as claimed in claim 22, wherein the frequency selection means is a grating.

24 (original). The method of changing a lasing frequency of a ring cavity laser as claimed in claim 23, wherein the ring cavity comprises a ring-shaped optical waveguide.

25 (original). The method of changing a lasing frequency of a ring cavity laser as claimed in claim 24, wherein the coupling means comprises a waveguide output coupler.

26 (currently amended). The method of changing a lasing frequency of a ring cavity laser as claimed in claim 25, wherein the ~~wherein the~~ optical gain element forms a part or all of the ring cavity.

27 (original). The method of changing a lasing frequency of a ring cavity laser as claimed in claim 26, wherein the optical gain element is a semiconductor material.

28 (original). The method of changing a lasing frequency of a ring cavity laser as claimed in claim 27, wherein the waveguide output coupler is a bi-directional coupler.